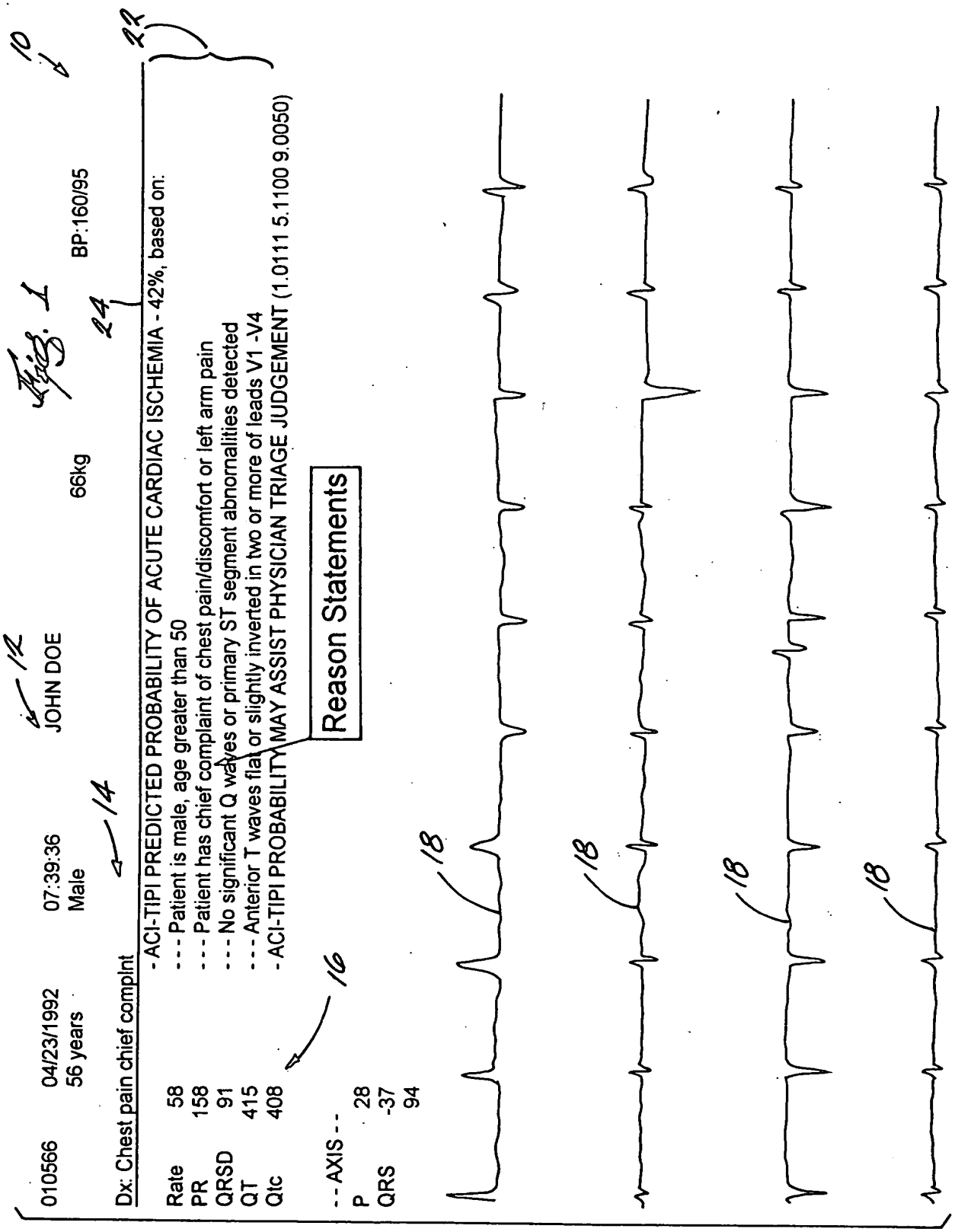

10
12
JOHN DOE
66kg
BP:160/95
Fig. 1
14
07:39:36
Male
04/23/1992
56 years
010566
Dx: Chest pain chief complnt
22
24
- ACI-TIPI PREDICTED PROBABILITY OF ACUTE CARDIAC ISCHEMIA - 42%, based on:
- - - Patient is male, age greater than 50
- - - Patient has chief complaint of chest pain/discomfort or left arm pain
- - - No significant Q waves or primary ST segment abnormalities detected
- - - Anterior T waves flat or slightly inverted in two or more of leads V1 -V4
- ACI-TIPI PROBABILITY MAY ASSIST PHYSICIAN TRIAGE JUDGEMENT (1.0111 5.1100 9.0050)
Reason Statements
16
Rate 58
PR 158
QRSD 91
QT 415
Qtc 408
- - AXIS - -
P 28
QRS -37
94
18
18
18
18

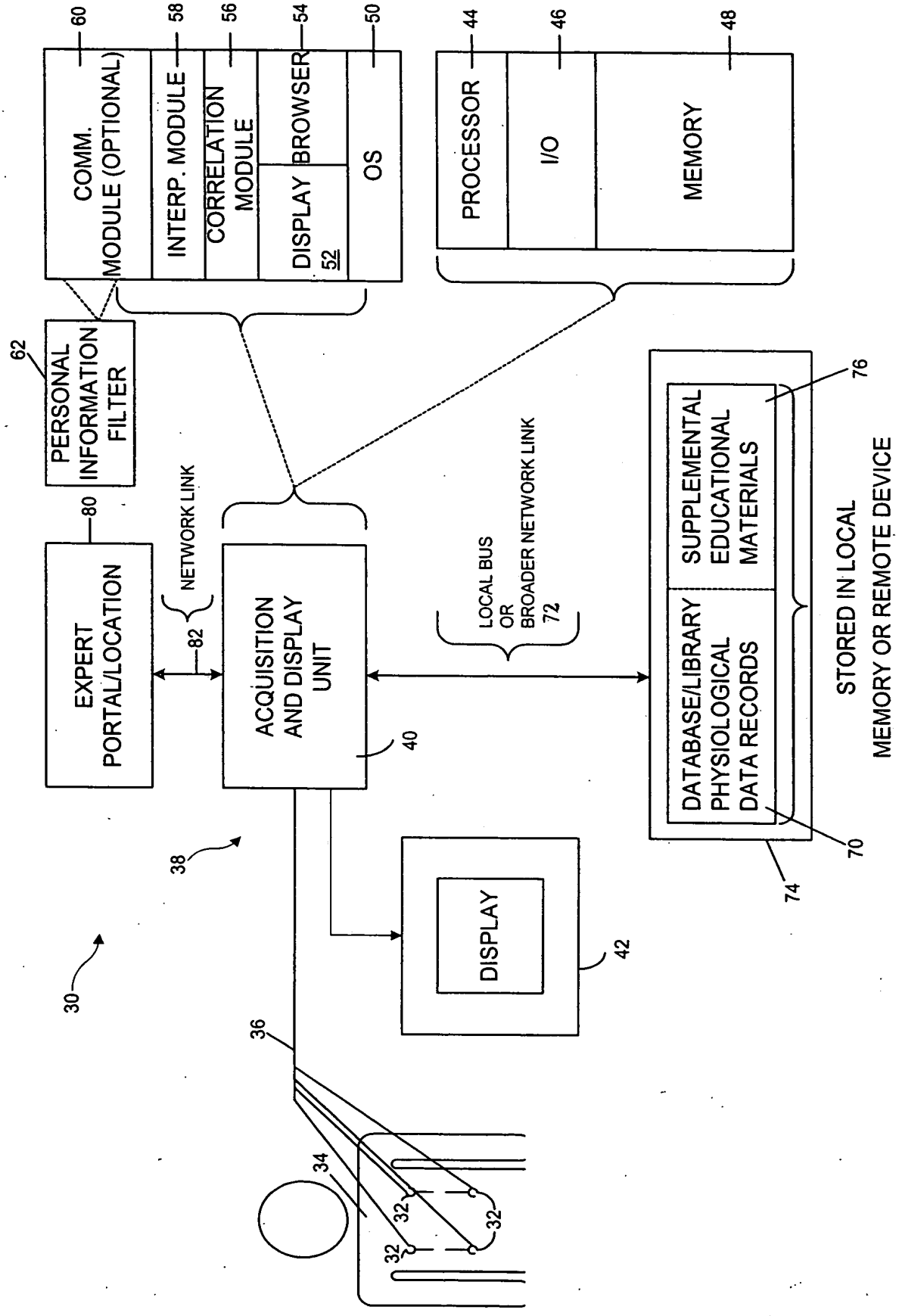

60
58
56
54
50
COMM. MODULE (OPTIONAL)
INTERP. MODULE
CORRELATION MODULE
BROWSER
DISPLAY 52
OS
44
46
48
PROCESSOR
I/O
MEMORY
62
PERSONAL INFORMATION FILTER
80
EXPERT PORTAL/LOCATION
NETWORK LINK
82
ACQUISITION AND DISPLAY UNIT
40
LOCAL BUS OR BROADER NETWORK LINK
72
SUPPLEMENTAL EDUCATIONAL MATERIALS
76
DATABASE/LIBRARY PHYSIOLOGICAL DATA RECORDS
70
74
STORED IN LOCAL MEMORY OR REMOTE DEVICE
38
DISPLAY
42
30
36
34
32
32
32

FIG. 2

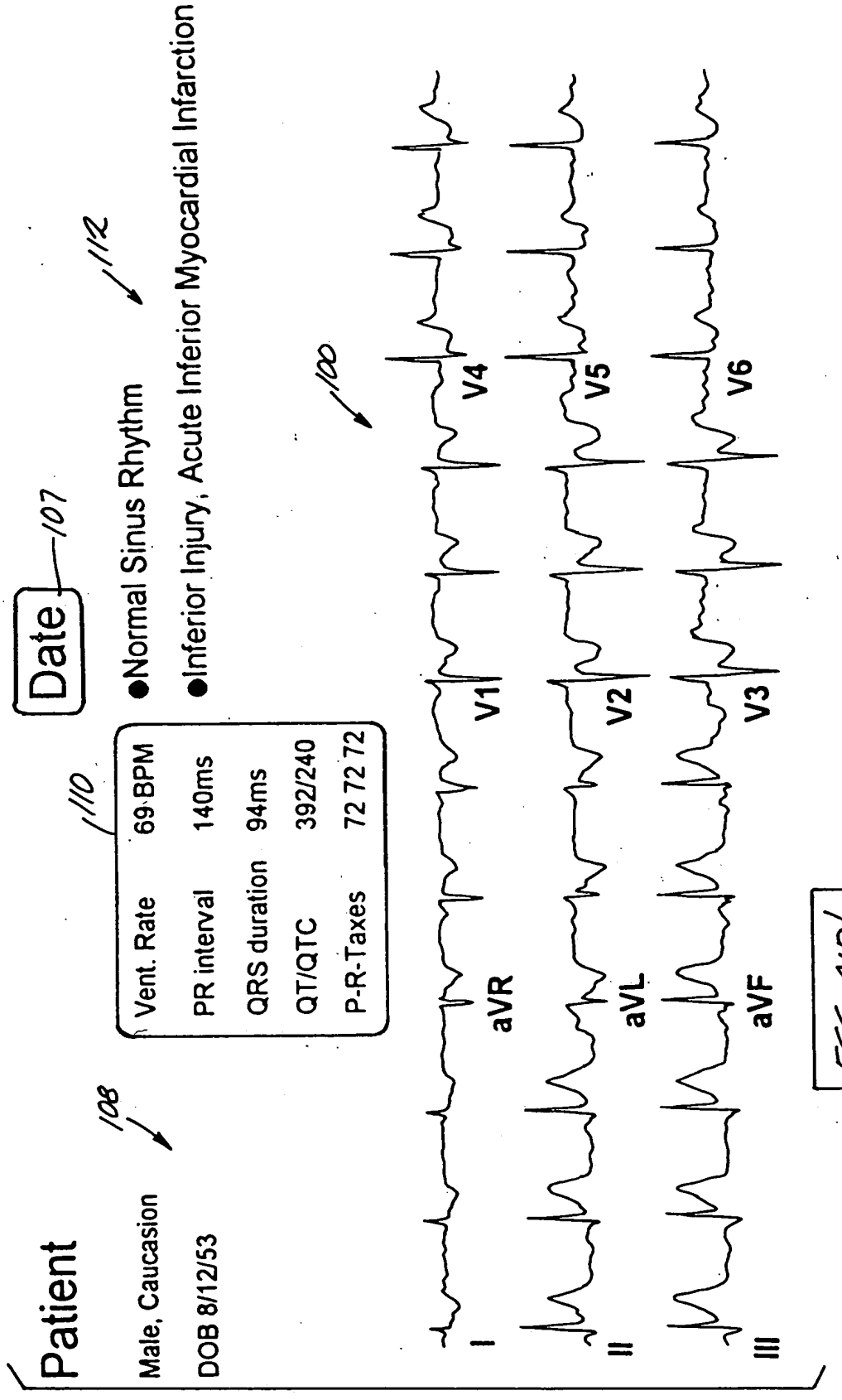

Patient
108
Male, Caucasion
DOB 8/12/53
Date
107
110
Vent. Rate 69 BPM
PR interval 140ms
QRS duration 94ms
QT/QTC 392/240
P-R-Taxes 72 72 72
112
●Normal Sinus Rhythm
●Inferior Injury, Acute Inferior Myocardial Infarction
100
I
II
III
aVR
aVL
aVF
V1
V2
V3
V4
V5
V6
ECG AID/ EXPERT LIBRARY
116

Fig. 3

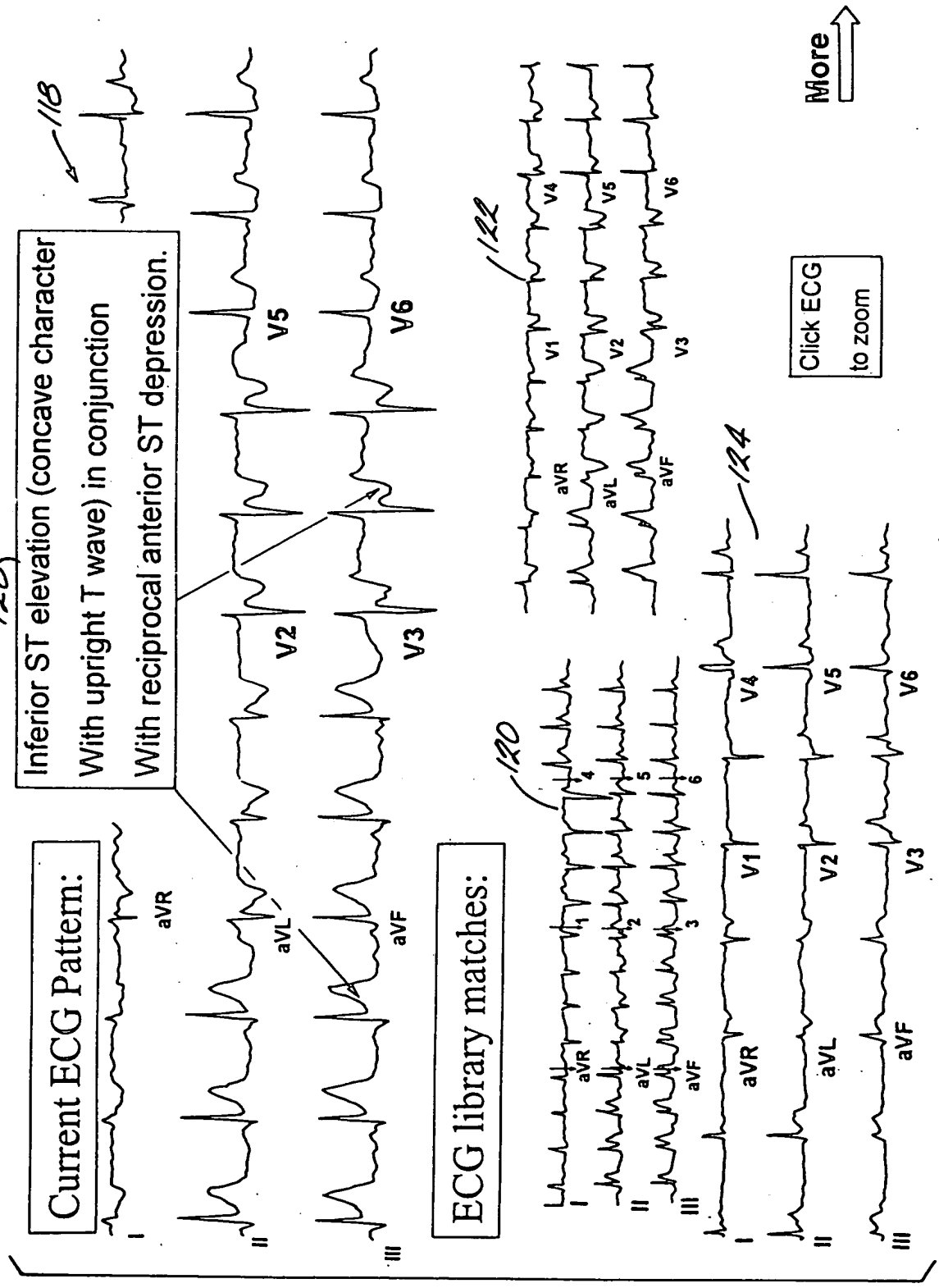
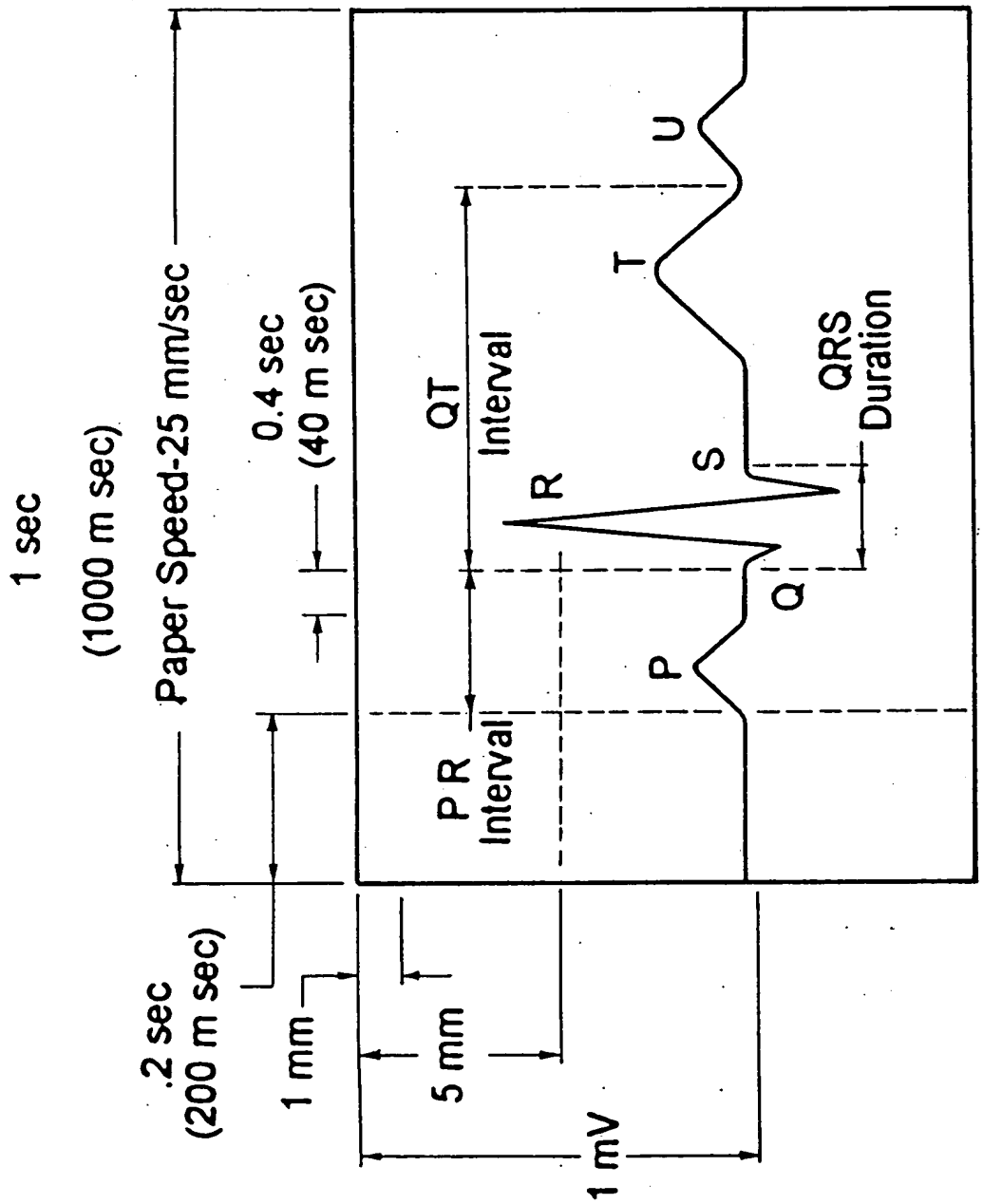
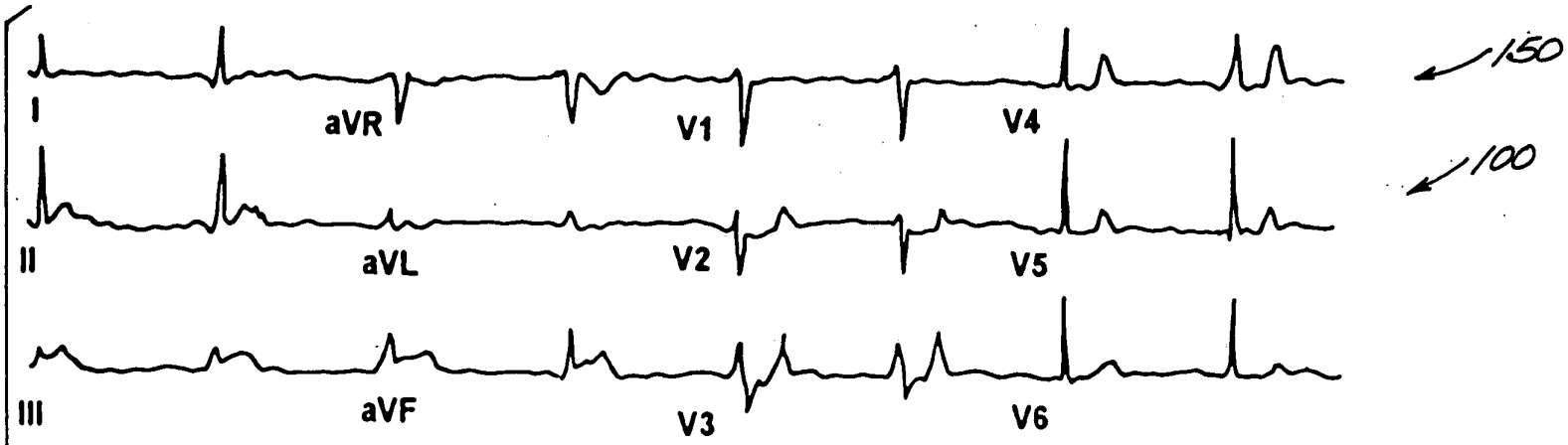

Current ECG Pattern:
Inferior ST elevation (concave character
With upright T wave) in conjunction
With reciprocal anterior ST depression.
128
118
ECG library matches:
120
122
124
Click ECG
to zoom
More

Fig. 4

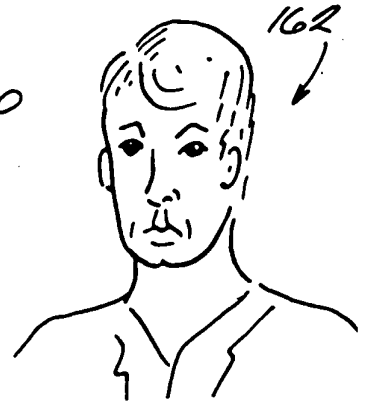
Fig. 5


1 sec
(1000 m sec)
Paper Speed-25 mm/sec
0.4 sec
(40 m sec)
QT
Interval
PR
Interval
QRS
Duration
P
Q
R
S
T
U
.2 sec
(200 m sec)
1 mm
5 mm
1 mV



"Although the ST/T contour in the inferior leads is concave this is a highly specific pattern of acute inferior myocardial infarction. Note the abnormal ST depression in V3. This coupled with the ST elevation in lead II, indicates acute inferior MI. The specificity for this call is 99%."

160



Dr. Expert

Community Medical Center

Fig. 6

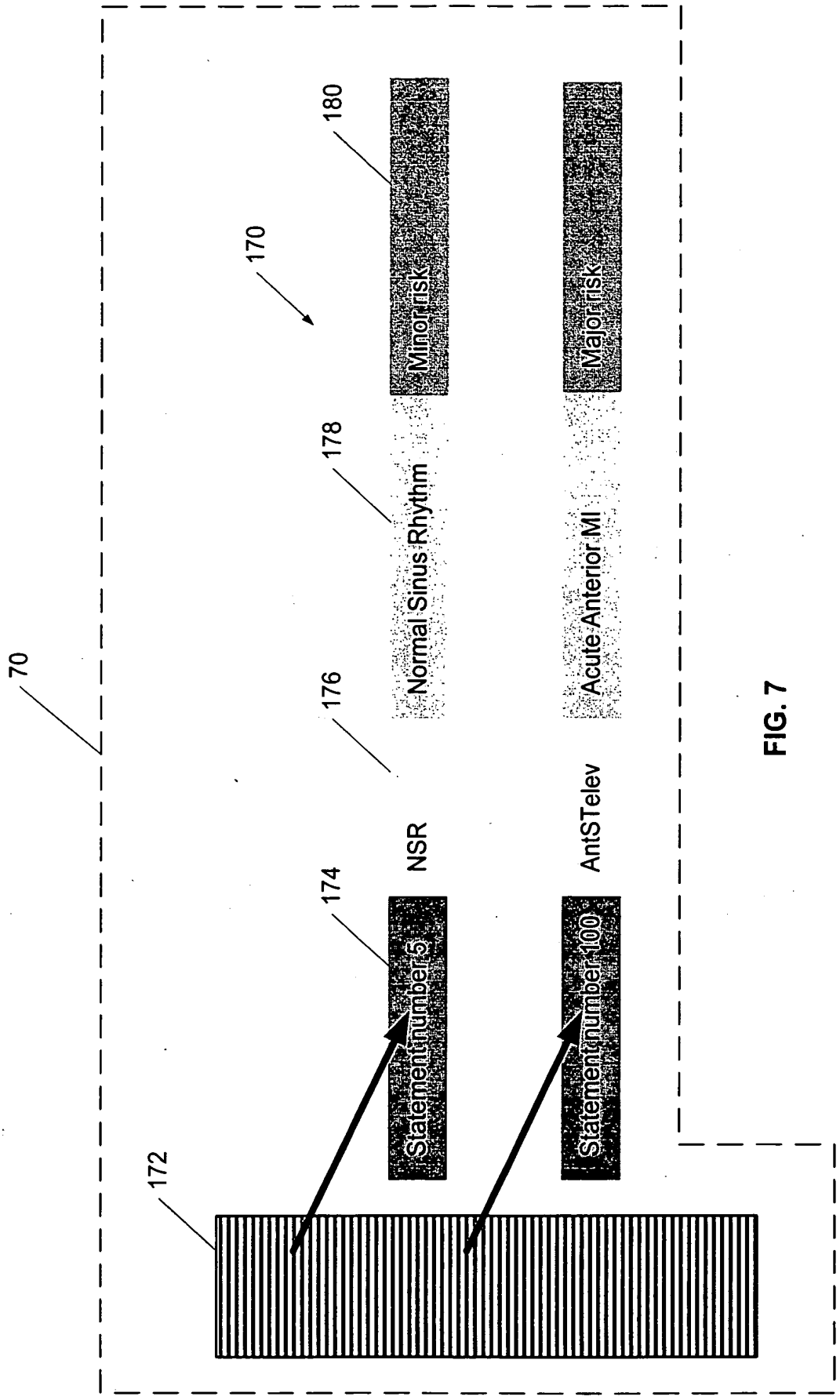

70
172
174
Statement number 5
Statement number 100
176
NSR
AntSTelev
178
Normal Sinus Rhythm
Acute Anterior MI
170
180
Minor risk
Major risk

FIG. 7

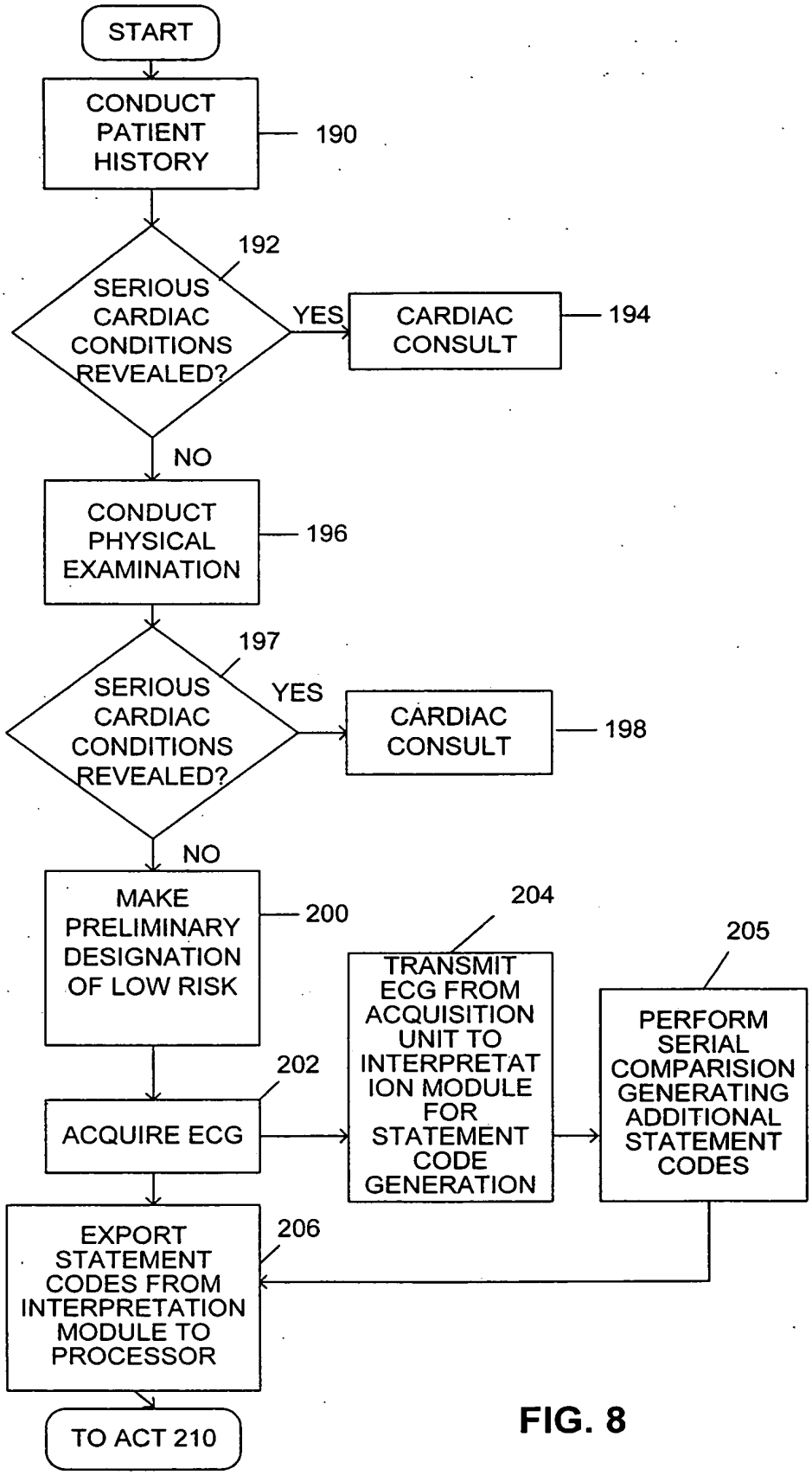

START
CONDUCT PATIENT HISTORY
190
192
SERIOUS CARDIAC CONDITIONS REVEALED?
YES
CARDIAC CONSULT
194
NO
CONDUCT PHYSICAL EXAMINATION
196
197
SERIOUS CARDIAC CONDITIONS REVEALED?
YES
CARDIAC CONSULT
198
NO
MAKE PRELIMINARY DESIGNATION OF LOW RISK
200
204
TRANSMIT ECG FROM ACQUISITION UNIT TO INTERPRETATION MODULE FOR STATEMENT CODE GENERATION
205
PERFORM SERIAL COMPARISION GENERATING ADDITIONAL STATEMENT CODES
202
ACQUIRE ECG
EXPORT STATEMENT CODES FROM INTERPRETATION MODULE TO PROCESSOR
206
TO ACT 210

FIG. 8

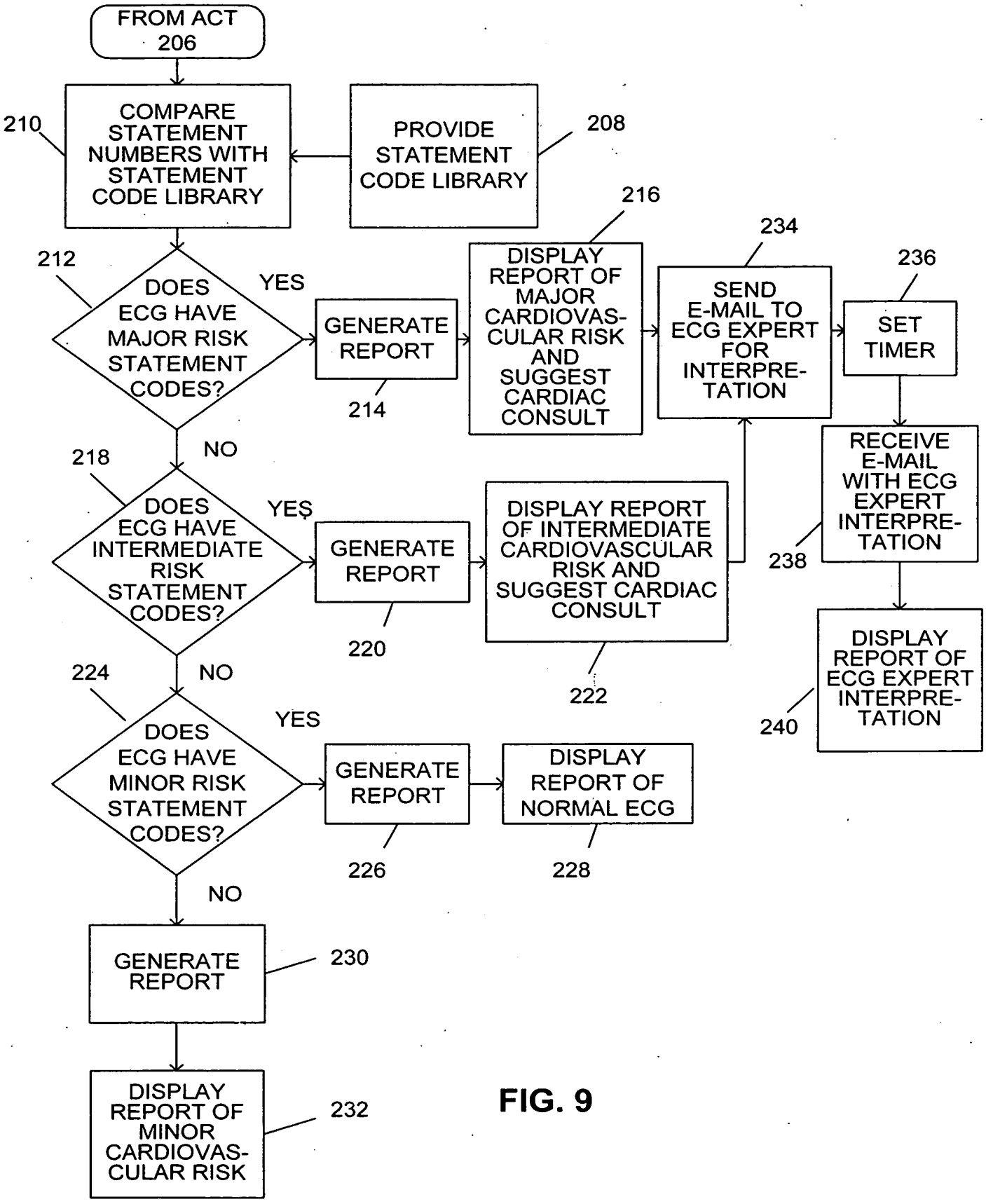

FROM ACT 206
COMPARE STATEMENT NUMBERS WITH STATEMENT CODE LIBRARY
210
PROVIDE STATEMENT CODE LIBRARY
208
DOES ECG HAVE MAJOR RISK STATEMENT CODES?
212
YES
GENERATE REPORT
214
DISPLAY REPORT OF MAJOR CARDIOVASCULAR RISK AND SUGGEST CARDIAC CONSULT
216
SEND E-MAIL TO ECG EXPERT FOR INTERPRETATION
234
SET TIMER
236
RECEIVE E-MAIL WITH ECG EXPERT INTERPRETATION
238
DISPLAY REPORT OF ECG EXPERT INTERPRETATION
240
NO
DOES ECG HAVE INTERMEDIATE RISK STATEMENT CODES?
218
YES
GENERATE REPORT
220
DISPLAY REPORT OF INTERMEDIATE CARDIOVASCULAR RISK AND SUGGEST CARDIAC CONSULT
222
NO
DOES ECG HAVE MINOR RISK STATEMENT CODES?
224
YES
GENERATE REPORT
226
DISPLAY REPORT OF NORMAL ECG
228
NO
GENERATE REPORT
230
DISPLAY REPORT OF MINOR CARDIOVASCULAR RISK
232

FIG. 9